

## Claims

1. A method for transmitting a data packet by a router,  
wherein the router:
  - 5 determines a receiver for the data packet;
  - checks an affinity value of the data packet;
  - attenuates a payload of the data packet depending on the affinity value of the data packet;
  - checks an affinity value assigned to the determined  
10 receiver; and
  - sends the attenuated data packet to the determined receiver, if the determined receiver shows the same affinity value as the data packet.
- 15 2. A method according to claim 1, whereby the router comprises a table in which affinity values of receivers are stored, whereby the router compares the affinity value of the data packet with the affinity values of determined receivers stored in the table and selects determined receivers that  
20 have the same affinity value as the data packet, and whereby the router sends the data packet to at least one of the selected receivers.
3. A method according to claim 1, whereby the router drops the  
25 data packet if no receiver shows the same affinity value.
4. A method according claim 1, whereby the router attenuates the data packet in two different ways, when a data packet comprises two affinity values and the router finds a first  
30 receiver that has the first affinity value and a second receiver that has the second affinity value, by creating a first and a second attenuated data packet, whereby the two attenuation methods are determined by the first and the second affinity value, and whereby the router sends the

first attenuated data packet to the first receiver with the first affinity value and the second attenuated data packet to the second receiver with the second affinity value.

5 5. A method according claim 1, whereby, when a data packet comprises a first and a second affinity value, whereby the first affinity value determines a greater attenuation of the payload of the data packet than the second affinity value, the router attenuates the payload of the data packet  
10 according to the first affinity value and sends the attenuated data packet to the receiver showing the first affinity value.

15 6. A method according to claim 1, wherein the data packet comprises video and audio data, wherein the data packet comprises a first and a second affinity value, wherein the first affinity value determines only the audio data to be transmitted by the router and the second affinity value determines only the video data to be transmitted by the  
20 router.

7. A method according to claim 1, wherein the data packets are used for sharing information at the same time with several  
25 hosts.

8. A method according to claim 1, wherein the data packets are used for sending different information to different hosts that are used for playing a computer game with several players and that the affinity values are used for selecting  
30 different information for different players.

9. A method according to claim 7, wherein the affinity values are used for determining different levels of information,

i.e. depending on different virtual locations the players are in.

10. A method according to claim 1, wherein a UDP checksum of the  
5 data packet is compared with a predetermined value and the data packet is recognized as an attenuable data packet if the UDP checksum equals the predetermined value, wherein the data packet comprises an AP checksum and the AP checksum is calculated to such a value to get an UDP checksum that is  
10 equal to the predetermined value if the data packet should be marked as an attenuable data packet.

11. In a network having a plurality of routers interconnected with each other, a program storage device readable by a digital processing apparatus and having a program of  
15 instructions which are tangibly embodied on the storage device and which are executable by at least one processing apparatus of said network to perform a method of transmitting a packet of data, said method comprising:

determining a receiver for said packet;  
20 determining an affinity value for said packet;  
attenuating a payload of said packet depending on its affinity value;  
determining an affinity value assigned to said determined receiver; and  
25 transmitting said attenuated packet to said receiver if said determined receiver has the same affinity value as said packet.

12. A network for transmitting a packet of data, said network comprising:  
30 a plurality of receivers interconnected with each other; and  
at least one program storage device readable by a digital processing apparatus and having a program of instructions which

is tangibly embodied on the storage device and which is executable by at least one processing apparatus of said network to perform a method of transmitting a packet of data, said method comprising:

5 determining a receiver for said packet,  
determining an affinity value for said packet,  
attenuating a payload of said packet depending on its affinity value,  
determining an affinity value assigned to said determined  
10 receiver, and  
transmitting said attenuated packet to said receiver if said determined receiver has the same affinity value as said packet.

13. A network for transmitting a packet of data as recited in  
15 claim 12, wherein each receiver is one of the following: a router and host.

14. A method for transmitting a data packet in a communications network, said method comprising:

20 determining a receiver for said packet;  
determining an affinity value for said packet;  
25 attenuating a payload of said packet depending on its affinity value;  
determining an affinity value assigned to said determined receiver; and  
30 transmitting said attenuated packet to said receiver if said determined receiver has the same affinity value as said packet.

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